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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/075,481	02/13/2002	Hideyuki Yamaguchi	2271/66770	8767

7590 06/21/2004
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EXAMINER

COLILLA, DANIEL JAMES

ART UNIT PAPER NUMBER

2854

DATE MAILED: 06/21/2004

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary	Applicant(s)	Applicant(s)
	10/075,481	YAMAGUCHI, HIDEYUKI
	Examiner	Art Unit
	Dan Colilla	2854

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 12 April 2004.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-8 is/are pending in the application.
- 4a) Of the above claim(s) 2 and 3/2 is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 1 and 3-8 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 13 February 2002 is/are: a) ☒ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☒ All b) ☐ Some * c) ☐ None of:
1. ☒ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. _____.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
- * See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- 1) ☒ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) ☒ Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)
Paper No(s)/Mail Date 20031121, 20021127 and 20020701
- 4) ☐ Interview Summary (PTO-413)
Paper No(s)/Mail Date. _____
- 5) ☐ Notice of Informal Patent Application (PTO-152)
- 6) ☐ Other: _____

DETAILED ACTION

Election/Restrictions

1. Applicant's election without traverse of species A (claims 1 and 3-8) in the reply filed on 4/12/04 is acknowledged. *For future consideration, it is noted that claim 3/2 appears to contradict that which is recited in claim 2.*

Claim Rejections - 35 USC § 103

2. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

3. Claims 1, 4-5 and 7-8 are rejected under 35 U.S.C. 103(a) as being unpatentable over Mori (JP 10329445).

With respect to claim 1, Mori discloses a heat-sensitive stencil sheet having a porous resin layer 25 provided on a thermoplastic resin film 20 (see paragraph [0014] of the machine translation) and a porous fiber layer 26 on the surface of the porous resin layer 25 as shown in Figure 5 of Mori. In the last three lines of paragraph [0081] in the machine translation of Mori, Mori discloses that an adhesive was applied to the porous fiber film in order to laminate the porous resin film to the fiber film. In paragraphs [0101] and [0103] of the machine translation, Mori discloses that 0.8g/m^2 and 0.4g/m^2 of adhesive were used in two different examples. These values fall in the range of 0.05g/m^2 to 1.5g/m^2 as recited in the claim. While Mori does not disclose the exact bonding strength between the porous resin layer and the porous fiber layer, one

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of ordinary skill in the art would have been able to determine the optimal bonding strength through routine experimentation based on the known properties of the adhesive and the stencil layers.

With respect to claims 4-5, the exact amount of the porous resin layer used would have been obvious to one of ordinary skill in the art through routine experimentation based on the properties of the porous resin layer and other factors of the heat-sensitive stencil sheet.

With respect to claims 7-8, the exact amount of the porous fiber layer used would have been obvious to one of ordinary skill in the art through routine experimentation based on the properties of the porous fiber layer and other factors of the heat-sensitive stencil sheet.

4. Claim 3 is rejected under 35 U.S.C. 103(a) as being unpatentable over Mori (JP 10329445) as applied to claims 1 and 4-5 and 7-8 above, and further in view of Matsuo et al. (US 4,981,746).

With respect to claim 3, the type of adhesive used by Mori is not known to the examiner. However, Matsuo et al. teaches that it is known to use an ionizing radiation-curable type adhesive to bond layers in a heat-sensitive stencil as described in col. 2, lines 6-10 of Matsuo et al. It would have been obvious to combine the teaching of Matsuo et al. with the heat-sensitive stencil sheet disclosed by Mori the adhesive is of the non-solvent type, there is little impregnation of the solvent into the porous layers to give excellent image quality and image density. Moreover, ionization radiation curing is possible at low temperatures, and therefore the

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stencil can be produced without causing any deformation of the thermoplastic layer (Matsuo et al., col. 2, lines 18-24).

5. Claim 6 is rejected under 35 U.S.C. 103(a) as being unpatentable over Mori (JP 10329445) as applied to claims 1 and 4-5 and 7-8 above, and further in view of Kobayashi (JP 06135172).

Mori discloses the claimed heat-sensitive stencil sheet except for the porous resin layer being a foamy film. However, Kobayashi teaches a heat-sensitive stencil sheet that includes a foamy layer 1A as a porous layer. It would have been obvious to combine the teaching of Kobayashi with the heat-sensitive stencil sheet disclosed by Mori for the advantage of preventing the rear sheet of the stencil from becoming stained with ink. *Note: the method of forming the foamy film holds no patentable weight in a product claim.*

6. The prior art made of record and not relied upon is considered pertinent to applicant's disclosure. Mori (JP 10236011) and Sato (JP 2000094847) are cited to show other examples of a heat-sensitive stencil with a porous resin layer and a porous fiber layer.


7. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Dan Colilla whose telephone number is (571)272-2157. The examiner can normally be reached Mon.-Thur. between 7:30 am and 6:00 pm. Faxes regarding this application can be sent to (703)872 - 9306.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Andrew Hirshfeld can be reached at (571)272-2168. Any inquiry of a general nature or relating to the status of this application or proceeding should be directed to the receptionist whose telephone number is (703)308-0956.

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Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

June 17, 2004


Daniel J. Colilla
Primary Examiner
Art Unit 2854